

Sheet 3

EXPLAIN

① The use of scenarios is becoming popular in computerized decision making. why? what are most interesting scenarios?

Cause

- 1) Scenarios provide flexibility in planning.
- 2) Help validate major assumptions used in modeling.
- 3) Help to check sensitivity of proposed solutions to changes in scenarios.
- 4) High graphical capabilities of computers.
- 5) High computation capabilities of " .

⇒ most interesting scenarios

- worst possible scenario.
- best possible scenario.
- most likely " .

② How term model used in this course?
advantage & Disadvantages of model? different types
of models?

model \rightarrow abstraction of reality

\rightarrow Reality is generally too complex to copy exactly
much of complexity is actually irrelevant in
problem solving.

Adv.

\rightarrow enable us to solve problems in short time & little cost.

Disadv.

\rightarrow bad model leads to inaccurate results and
solution for problem.

Types of model

a) iconic (physical)

b) Analog

c) Mathematical model.

List and explain Simon's four phases of decision making?

intelligence, Design, choice, implementation

intelligence

- a) Scan environment.
- b) Analyze organizational goal.
- c) Collect data
- d) identify problem.
- e) Categorize problem.

Design

- a) create model.
- b) Test for feasibility.
- c) validate results.
- d) select principle of choice.

choice

- a) make actual decision.
- b) commitment Follow certain course of action is made.
- c) search, evaluation and recommendation

Implementation

- a) Put recommended solution
- b) solution to original problems

④ Compare between normative & descriptive model

| normative | descriptive |
|--|--|
| <ul style="list-style-type: none">→ Chosen alternative is the best " .→ optimization. | <ul style="list-style-type: none">→ Describe how things are believed to be.→ mathematically based.→ simulation |

⑤ Mention search approaches used in finding an appropriate solution to a problem model.

- analytical techniques
- algorithms.
- blind search.
- heuristics.

④

المقالة من صفحة ٦٤
لكن في الامتحان (slides)

EXplain Vague boundaries

Elements play great role in implementation phase of decision making. After putting recommended solution for problem, implementation phase involves putting this recommended solutions into work.

⑦ You are about to decide whether to drive to work via the Freeway or via the Parallel road. There is no immediate traffic info. Is your decision under certainty? risk? why.

→ our decision is Risky cause we know history of traffic on these roads but we donot know the immediate traffic information. Accident may be happened or road work may be exist which makes our decision risky.